



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MAY 20, 2002

PTAS

MINTZ, LEVIN, COHN & ET AL  
SONIA K. GUTERMAN, PH.D., J.D.  
GLOVSKY AND POPEO, P.C.  
ONE FINANCIAL CENTER  
BOSTON, MA 02111

RECEIVED

MAY 24 2002



\*102032291A\*

MINTZ LEVIN, BOSTON  
UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/07/2002

REEL/FRAME: 012709/0309  
NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNEE: WIGGINS, THOMAS DOC DATE: 02/22/2002

ASSIGNEE: GHOSH, MADHUSHREE DOC DATE: 02/19/2002

ASSIGNEE: BOTTEMLEY, LAWRENCE A. DOC DATE: 02/22/2002

ASSIGNEE: SEMINAR, SALVATORE DOC DATE: 02/19/2002

ASSIGNEE: HU, ZHIYA DOC DATE: 02/18/2002

ASSIGNEE: SEELEY, TIMOTHY DOC DATE: 02/18/2002

ASSIGNEE: KOSSEK, SEBASTIAN DOC DATE: 02/20/2002

24499-53C

□ Data Entry	Done By
□ Docket Entry	<i>M</i>
□ Docket Cross Off	_____
□ Previously Entered	_____
□ No Docketing Req	_____
□ ELITE	_____
□ Annulles	_____

012709/0309 PAGE 2

## ASSIGNEE:

PROTIVERIS, INC.  
9700 GREAT SENECA HIGHWAY  
ROCKVILLE, MARYLAND 20850

SERIAL NUMBER: 10054760  
PATENT NUMBER:

FILING DATE: 11/13/2001  
ISSUE DATE:

SAUNDRA BALLENGER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

Express Mail Label No: EV054296140US  
 Date of Deposit: March 7, 2002

Attorney Docket No. 24499-530

FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94)		03-27-2002	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
Please		102032291	/ thereof.
<p>1. Name of conveying party(ies):            Thomas Wiggins; Madhushree Ghosh; Lawrence A. Bottemilcy;            Salvatore Seminar; Zhiya Hu; Timothy Seely and Sebastian Kossek</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>3. Nature of conveyance:  <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger  <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name  <input type="checkbox"/> Other _____</p> <p>Execution Date: 2/22/2002; 2/19/2002; 2/22/2002; 2/19/2002; 2/18/2002;            2/18/2002; 2/20/2002</p>		<p>2. Name and address of receiving party(ies):            Name: Protiveris, Inc.            Internal Address:            9700 Great Seneca Highway            Rockville, MD 20850  <i>3/7/02</i></p> <p>Additional name(s) &amp; address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>4. Application number(s) or patent number(s): 10/054,760</p> <p>If this document is being filed together with a new application, the execution date of the application is _____</p> <p>A. Patent Application No(s): _____</p>		<p>B. Patent No(s): _____</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>5. Name and address of party to whom correspondence            concerning document should be mailed:</p> <p>Name: Sonia K. Guterman, Ph.D., J.D.            Address: MINTZ, LEVIN, COHN, FERRIS            GLOVSKY and POPEO, P.C.            One Financial Center            Boston, MA 02111</p>		<p>6. Total number of applications and patents involved: 1</p> <p>7. Total fee (37 CFR 3.41) \$40.00</p> <p><input checked="" type="checkbox"/> Enclosed  <input type="checkbox"/> The Commissioner is authorized to charge Deposit Account            No: 50-0311, Reference No. 24494-005</p>	
<p>DO NOT USE THIS SPACE</p> <p>9. Statement and signature  <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i></p> <p>Sonia K. Guterman, Ph.D., Reg. No. 44,729</p> <p><i>Sonia K. Guterman</i> <i>March 7, 2002</i></p> <p>Name of Person Signing _____ Signature _____ Date _____</p> <p>Total number of pages including cover sheet, attachments, and document: 17</p>			

Mail documents to be recorded with required cover sheet information to:

BOX ASSIGNMENT  
 Commissioner of Patents and Trademarks  
 Washington, D.C. 20231

03/27/2002 TDI01 00000020 10054760

01 FC:581

40.00 0P

TFA 1640519v1

Express Mail Label N... EV054296140US  
 Date of Deposit: March 7, 2002

Attorney Docket No. 24499-530  
 (2506/130)

## ASSIGNMENT

We, Thomas Wiggins of Columbia, MD, Madhusree Gosh of Rockville, MD, Lawrence A. Bottomley of Lawrenceville, GA, Salvatore Seminara of Chicago, IL, Zhiyu Hu of Bethesda, MD, Timothy Seeley of Bethesda, MD and Sebastian Kossek of Phoenix, AZ, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to Protiveris, Inc., a Delaware corporation, with offices at 9700 Great Seneca Highway, Rockville, MD 20850 and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

## MICROFLUIDICS APPARATUS AND METHODS FOR USE THEREOF

filed with the U.S. Patent and Trademark Office on November 13, 2001 and assigned Serial No 10/054,760 including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, sale and transfer not been made.

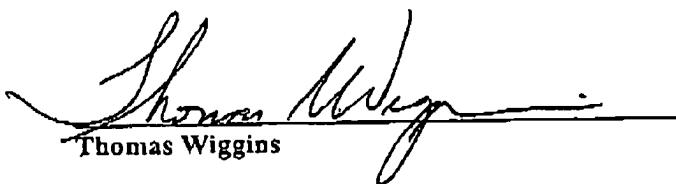
We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

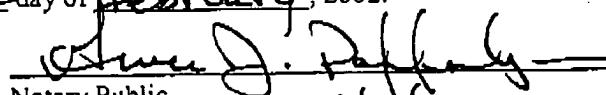
Date: Feb 22, 2002

  
Thomas Wiggins

State of Maryland  
Country of United States

Subscribed and sworn to before me this 22 day of February, 2002.

SEAL

  
Steven J. Daffney  
Notary Public  
My commission expires 3/8/02

Date: Feb 19, 2002

  
Madhushree Ghosh  
Madhushree Ghosh

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Lawrence A. Bottomley

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_  
\_\_\_\_\_  
Lawrence A. BottomleyDate: 2-19-2002State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Zhiyu Hu

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: 2-18-02  
Timothy SeeleyState of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_Date: 2-20-02  
Sebastian KossekState of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

TRA 1614750v1

Express Mail Label No.: EVu54296140US  
Date of Deposit: March 7, 2002

Attorney Docket No. 24499-530  
(2506/130)

### ASSIGNMENT

We, Thomas Wiggins of Columbia, MD; Madhusree Gosh of Rockville, MD, Lawrence A. Bottomley of Lawrenceville, GA, Salvatore Seminara of Chicago, IL; Zhiyu Hu of Bethesda, MD, Timothy Seeley of Bethesda, MD and Sebastian Kossek of Phoenix, AZ, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to Protiveris, Inc., a Delaware corporation, with offices at 9700 Great Seneca Highway, Rockville, MD 20850 and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

### MICROFLUIDICS APPARATUS AND METHODS FOR USE THEREOF

filed with the U.S. Patent and Trademark Office on November 13, 2001 and assigned Serial No 10/054,762 including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: \_\_\_\_\_

Thomas Wiggins

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: Feb 19, 2002

Madhushree Ghosh  
\_\_\_\_\_  
Madhushree Ghosh

State of Maryland  
Country of United States

Subscribed and sworn to before me this 19 day of February, 2002.

SEAL

Thomas J. Poffly  
\_\_\_\_\_  
Notary Public  
My commission expires 3/8/02

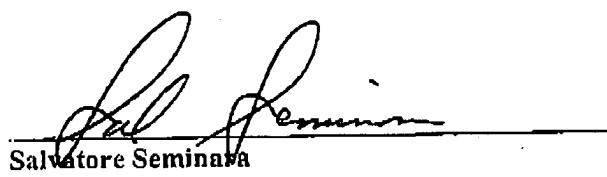
Date: \_\_\_\_\_

Lawrence A. Bottomley

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_  
\_\_\_\_\_  
Date: 2-19-2002  
\_\_\_\_\_  
Salvatore SeminaraState of Maryland  
Country of United StatesSubscribed and sworn to before me this 19 day of February, 2002.

SEAL

  
\_\_\_\_\_  
Notary Public  
My commission expires 3/8/07

Date: \_\_\_\_\_

\_\_\_\_\_  
Zhiyu HuState of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

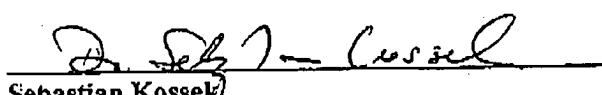
SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

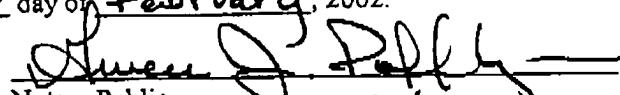
Date: 2-18-02

  
Timothy Seeley
State of Maryland  
Country of United StatesSubscribed and sworn to before me this 18 day of February, 2002.

SEAL


  
Steven J. Poff
   
Notary Public
   
My commission expires 3/8/02
Date: 2-20-02

  
Sebastian Kossek
State of Maryland  
Country of United StatesSubscribed and sworn to before me this 20 day of February, 2002.

SEAL


  
Steven J. Poff
   
Notary Public
   
My commission expires 3/8/02

TMA 1614750v1

Express Mail Label No.: EV054296140US

Date of Deposit: March 7, 2002

Attorney Docket No. 24499-530

(2506/130)

**ASSIGNMENT**

We, Thomas Wiggins of Columbia, MD, Madhushree Gosh of Rockville, MD, Lawrence A. Bottomley of Lawrenceville, GA, Salvatore Seminara of Chicago, IL, Zhiyu Hu of Bethesda, MD, Timothy Seeley of Bethesda, MD and Sebastian Kossek of Phoenix, AZ, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to Protiveris, Inc., a Delaware corporation, with offices at 9700 Great Seneca Highway, Rockville, MD 20850 and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

**MICROFLUIDICS APPARATUS AND METHODS FOR USE THEREOF**

filed with the U.S. Patent and Trademark Office on November 13, 2001 and assigned Serial No 10/054,762 including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: \_\_\_\_\_

Thomas Wiggins

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Madhushree Ghosh

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy SeeleyState of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

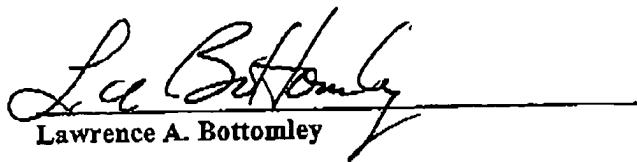
\_\_\_\_\_  
Sebastian KossekState of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2002.

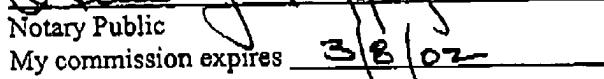
SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

TRA 1614750v1

Date: 2-22-02  
Lawrence A. BottomleyState of Maryland  
Country of United StatesSubscribed and sworn to before me this 22 day of February, 2002.

SEAL

  
Notary Public  
My commission expires 3/31/02

Date: \_\_\_\_\_

Salvatore Seminara

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

  
Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Zhiyu Hu

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

  
Notary Public  
My commission expires \_\_\_\_\_

Express Mail Label No.: EV054296140US  
Date of Deposit: March 7, 2002

Attorney Docket No. 24499-530  
(2506/130)

## ASSIGNMENT

We, Thomas Wiggins of Columbia, MD, Madhusree Gosh of Rockville, MD, Lawrence A. Bottomley of Lawrenceville, GA, Salvatore Seminara of Chicago, IL, Zhiyu Hu of Bethesda, MD, Timothy Seeley of Bethesda, MD and Sebastian Kossek of Phoenix, AZ, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to Protiveris, Inc., a Delaware corporation, with offices at 9700 Great Seneca Highway, Rockville, MD 20850 and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

## MICROFLUIDICS APPARATUS AND METHODS FOR USE THEREOF

filed with the U.S. Patent and Trademark Office on November 13, 2001 and assigned Serial No 10/054,762 including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: \_\_\_\_\_

Thomas Wiggins

State of \_\_\_\_\_

Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

Notary Public

My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Madhushree Ghosh

State of \_\_\_\_\_

Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

Notary Public

My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Timothy Seeley

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Sebastian Kossek

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

TRA 1614750v1

Date: \_\_\_\_\_

Lawrence A. Bottomley

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_

Date: \_\_\_\_\_

Salvatore Seminara

State of \_\_\_\_\_  
Country of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires \_\_\_\_\_Date: 2/18/02

Zhiyu Hu

State of Maryland  
Country of United StatesSubscribed and sworn to before me this 18 day of February, 2002.

SEAL

\_\_\_\_\_  
Notary Public  
My commission expires 3/8/02